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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,638

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EXAMINER

HOOVER, MATTHEW

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,638	Applicant(s) CLARKE, PAUL FRANCIS	
	Examiner MATTHEW HOOVER	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15 and 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The arguments filed 5/24/10 have been entered. Claims 1-9, 11-15 and 17-24 remain pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-9, 11-15 and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes (US 4807647) in view of Yoshida (US 6206007).

Regarding claims 1-3, 5-7 and 19-22 Hayes teaches an upstream filter with a high pressure drop (draw resistance) filter and a second downstream low pressure drop filter (abstract). Figure 4 shows the wrapper (#6) which wraps around the component

Art Unit: 1791

and provides ventilation and defines the cavity (abstract). Hayes also teaches that the high draw resistance upstream filter has tar retention of 12% (table 2) and the low draw resistance (downstream) filter has a tar retention of 30% (column 49-55), with a specific example of 27% (table 2).

Hayes does not disclose that the draw resistance for the downstream filter is greater than the upstream filter's draw resistance.

Yoshida teaches a dual filter smoking article in which the up stream filter has a draw resistance of 25 mmWG and can decrease to 12.5mmWG (column 9 lines 46-53, 61-67 and column 10 lines 1-4). It also teaches that the downstream filter has a draw resistance of 75mmWG (column 9 lines 46-53).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the filter in Hayes with filter from Yoshida. The rationale to do so would have been the motivation provided by the teaching of Yoshida that to do so would predictably provide a decrease in tar and nicotine (column 8 lines 64-67 and column 9 lines 1-7).

Regarding claim 4, the teachings of Hayes and Yoshida are disclosed above.

Neither Hayes nor Yoshida teaches that the tar retention for the down stream filter is between 35-45%.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the specified tar retention range. Since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover

Art Unit: 1791

the optimum or workable ranges by routine experimentation.” See MPEP 2144.05(II)(A) and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)

Regarding claims 8-9, the teachings of Hayes and Yoshida are disclosed above. Hayes also teaches that the filter wrapper provides ventilation, which means it is air permeable (abstract).

Regarding claims 11-14, the teachings of Hayes and Yoshida are disclosed above. Hayes also teaches that the filter and tobacco rod are joined by a permeable ventilating tipping overwrap which has ventilating perforations, which would register with the cavity (column 1 lines 43-54). The filter paper wrap is also air permeable (column 1 lines 5-27). The many perforations inherently allow air to pass through the components into and out of the cavity in any direction, which would include laterally.

Regarding claim 17, the teachings of Hayes and Yoshida are disclosed above. The filter (figure 2 #2 and 4) is attached to a tobacco rod (figure 2 #8), which is wrapped (column 1 lines 39-62).

Regarding claim 18, the teachings of Hayes and Yoshida are disclosed above.

Hayes does not teach the joining of multiple filters end to end in mirror image relationship.

Art Unit: 1791

It would have been obvious to one of ordinary skill in the art at the time of the invention to use multiple filters since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See MPEP 2144.04(VI)(B) and see *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). The invention of Hayes is of a multiple filter cigarette filtration device in which the filters (figure 2 #2 and 4) are attached end to end (figure 2). It would have been obvious to add multiple filters since it is already taught in the original invention to have more than one filter, thereby improving filtering ability and removal of CO.

Regarding claim 23, the teachings of Hayes and Yoshida are disclosed above.

Regarding claim 24, the teachings of Hayes and Yoshida are disclosed above.

Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes (US 4807647) in view of Yoshida (US 6206007) and in further view of Banerjee (US 5839449).

Regarding claim 15, the teachings of Hayes and Yoshida are disclosed above. Hayes also teaches that the CO delivery is 5mg and that CO/tar delivery rate is 0.5 (table 3).

Neither Hayes nor Yoshida teaches that the CO delivery is less than 5 mg.

Banerjee teaches a multiple filter cigarette and a method of making that has a CO delivery of 4.9mg (column 5 lines 1-14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the filter in Hayes and Yoshida multiply to obtain the CO amount from Banerjee. The rationale to do so would have been that CO is bad for ones health, which is commonly known in the art. Therefore it would have been obvious to use the process disclosed in Banerjee to reduce the CO, while still trying to provide a good tasting cigarette (column 2 lines 53-62).

Response to Arguments

Applicant's arguments filed 5/24/10 have been fully considered but they are not persuasive.

Applicant argues on page 6 of the Remarks that the references cannot be combined because Hayes teaches the opposite arrangement of the filter plugs.

It is noted by the examiner that Hayes is not relied upon to teach the arrangement draw resistance of the filters. In fact, it is even stated that Hayes does not teach this in the rejection. The Yoshida reference is used to show that the draw resistance of the downstream filter is greater than that of the upstream filter.

Applicant argues on page 6 of the Remarks that there is not motivation to switch the order of the plugs because of the criticality that Hayes places on the configuration.

It is noted by the examiner that while Hayes does disclose an embodiment, Yoshida discloses another embodiment while giving motivation to do so. This motivation

Art Unit: 1791

being that it would decrease tar and nicotine. This motivation is reason for why a person of ordinary skill in the art would have the draw resistance for the downstream filter being greater than the upstream filter even though the first reference discloses the opposite.

Applicant argues on page 6 of the Remarks that the references cannot be combined since Hayes teaches a triple cavity filter and Yoshida teaches a dual cavity filter.

It is noted by the examiner that the applicant discloses in the Remarks on page 5 that Hayes can be either a dual filter arrangement or a triple cavity arrangement. Since Hayes teaches that the filter can be a dual filter arrangement (same as Yoshida) it would have been obvious that this embodiment could have been combined with Yoshida since it is also a dual filter embodiment.

Applicant argues on page 6 of the Remarks that one would not modify a cavity type filter arrangement from Hayes to a dual filter arrangement of Yoshida.

It is noted by the examiner that, as disclosed above, Hayes teaches that it can have either a dual filter or a cavity type arrangement. This means that it does teach the same type (dual filter) as Yoshida and would have been obvious to combine.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW HOOVER whose telephone number is (571)270-7663. The examiner can normally be reached on Mon-Thurs 7am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katarzyna I. Wyrozewski can be reached on (571) 272-1127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MH/
Examiner AU 1791

/KHANH NGUYEN/
Primary Examiner, Art Unit 1791